

Attorney Docket No. 7700 D1

Claims

Claim 1 (Currently amended) A method for targeted application of non-gaseous Performance Enhancing Materials to a creping cylinder comprising the steps of:

- a) providing a tissue making operation wherein a rotating creping cylinder is used to dry a wet mat of fibrous material wherein said mat of fibrous material is contacted with a doctor blade that crepes the fibrous mat as it leaves the creping cylinder;
- b) dividing said creping cylinder into a plurality of Zones, wherein each Zone has a performance requirement and operating temperature range that is different than the adjacent Zone;
- c) providing means for targeted application of one or more desired Performance Enhancing Materials to each Zone of said creping cylinder; and
- d) applying one or more Performance Enhancing Materials to at least two Zones of said creping cylinder, wherein the Performance Enhancing Material applied to each Zone is selected based on the performance requirement and operating temperature range of each Zone of said creping cylinder.

Claim 2 (cancelled).

Claim 3 (original) A method to detect whether a Performance Enhancing Material is present on a creping cylinder comprising the steps of:

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- a) adding a known amount of an inert fluorescent tracer to a known amount of a Performance Enhancing Material, with said Performance Enhancing Material being suitable for application to a creping cylinder;
- b) applying said Performance Enhancing Material to creping cylinder;
- c) using a fluorometer to measure the fluorescent signal of said inert fluorescent tracer on said creping cylinder;
- d) using the fluorescent signal of said inert fluorescent tracer to determine the amount of inert fluorescent tracer present on said creping cylinder;
- e) correlating the amount of inert fluorescent tracer present on said creping cylinder with the amount of Performance Enhancing Material present on said creping cylinder;
- f) comparing the amount of Performance Enhancing Material present on said creping cylinder with the desired amount of Performance Enhancing Material that is supposed to be present on said creping cylinder; and optionally
- g) adjusting the amount of Performance Enhancing Material present on said creping cylinder, based on the measured fluorescent signal of said inert fluorescent tracer.

Claim 4 (original) A method to detect whether a Performance Enhancing Material is present on a creped tissue product comprising the steps of:

- a) adding a known amount of an inert fluorescent tracer to a known amount of a Performance Enhancing Material, with said Performance Enhancing Material being suitable for application to a creping cylinder;
- b) applying said Performance Enhancing Material to a creping cylinder;
- c) using a fluorometer to measure the fluorescent signal of said inert fluorescent tracer on the creped tissue leaving said creping cylinder and repeating this measurement as

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required in order to determine the pattern of the presence and amount of said Performance Enhancing Material on said creped tissue;

- d) using the pattern of the presence and amount of said Performance Enhancing Material on said creped tissue to ascertain whether the application of Performance Enhancing Material to said creping cylinder is optimal; and optionally;
- e) adjusting the amount of Performance Enhancing Material present on said creping cylinder, based on the pattern of the presence and amount of said Performance Enhancing Material on said creped tissue.

Claim 5 (original) A method to detect whether the correct amount and type of Performance Enhancing Materials are present on a creping cylinder comprising the steps of:

- a) adding a known amount of an inert fluorescent tracer to a known amount of a Performance Enhancing Material, with said Performance Enhancing Material being suitable for application to a creping cylinder;
- b) applying said Performance Enhancing Material to creping cylinder;
- c) using a fluorometer to measure the fluorescent signal of said inert fluorescent tracer in the collected water removed from the felt;
- d) using the fluorescent signal of said inert fluorescent tracer to determine the amount of inert fluorescent tracer present in the collected water removed from the felt;
- e) correlating the amount of inert fluorescent tracer present in said collected water removed from the felt with the amount of Performance Enhancing Material present in said water removed from the felt;

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- f) comparing the amount of Performance Enhancing Material present in the water removed from the felt with the desired amount of Performance Enhancing Material that is supposed to be present on said creping cylinder; and optionally
- g) adjusting the amount and type of Performance Enhancing Material present on said creping cylinder, based on the measured fluorescent signal of said inert fluorescent tracer found in the water removed from the felt.